

Notice of Allowability

Application No.

10/730,461

Examiner

Rodney H. Bonck

Applicant(s)

BRISSENDEN ET AL.

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to July 28, 2005.
2. ☒ The allowed claim(s) is/are 1-4, 6-23 and 29-38.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

The following action is in response to the amendment received July 28, 2005.

Allowable Subject Matter

Claims 1-4, 6-23, and 29-38 are allowed.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The prior art of record fails to show or render obvious a power transmission device as defined in claim 1, wherein a torque transfer mechanism includes a hydraulic clutch actuation system having a primary fluid circuit and a separate secondary fluid circuit interconnected by a pressure intensifier and a controller to establish the value of an electric control signal based on a rotary speed difference between the input member and the output member, the control signal being operable to vary the pressure supplied to the piston chamber for causing torque to be transferred by the clutch assembly.

The art of record also fails to show or teach a transfer case as defined in claim 13 including a torque transfer mechanism having a hydraulic clutch actuation system that has a fluid pressure source coupled to a pressure intensifier that supplies magnified pressure to a piston, the piston being operable for applying the clutch engagement force.

The art of record fails to show or render obvious a power transmission device as defined in claim 16 including a torque transfer mechanism having a hydraulic clutch actuation system which has a primary fluid circuit and a secondary fluid circuit

Art Unit: 3681

interconnected by a pressure intensifier, the secondary circuit operable in a first mode to couple a pump member to a continuously driven member to provide lubrication to the friction clutch assembly.

The prior art of record fails to show or teach a method of actuating a clutch as defined in claim 29 including the steps of selectively supplying a pressurized fluid to a low pressure side of a pressure intensifier, selectively supplying a magnified pressure from a high pressure side of the pressure intensifier to a piston, engaging the clutch, maintaining a desired pressure range within a low pressure accumulator of a primary fluid circuit, and maintaining a desired pressure range in a secondary fluid circuit.

The prior art of record fails to show or teach a method of actuating a clutch as defined in claim 30 including the steps of selectively supplying a pressurized fluid to a low pressure side of a pressure intensifier, selectively supplying a magnified pressure from a high pressure side of the pressure intensifier to a piston, engaging the clutch, and coupling a pump component to a driven shaft of the power transmission device and pumping lubricant on the clutch by the pump component being coupled to the driven shaft by supplying magnified pressure from the high pressure side of the pressure intensifier to a second piston.

The prior art fails to show or render obvious a transfer case as defined in claim 31 wherein a first output shaft is adapted to transfer torque to a first driveline, a second output shaft is adapted to provide drive torque to a second driveline, and wherein a hydraulic clutch actuation system has a primary fluid circuit and a separate secondary

Art Unit: 3681

fluid circuit interconnected by a pressure intensifier, the second fluid circuit including a piston selectively engageable with the friction clutch assembly.

The art fails to show or teach a power transmission device as defined in claim 35 including a rotary input adapted to receive drive torque from a powertrain, a rotary output adapted to provide drive torque to a differential of an axle assembly, and a torque transfer mechanism including a hydraulic clutch actuation system having a primary fluid circuit and a separate secondary fluid circuit interconnected by a pressure intensifier, the second fluid circuit including a piston selectively engageable with the friction clutch assembly.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

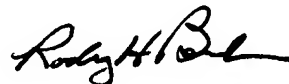
Response to Amendment

Since all the claims distinguish over or have been amended to distinguish over the prior art of record, the previous rejection based on 35 USC 103(a) is withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (571) 272-7089. The examiner can normally be reached on Monday-Friday 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rodney H. Bonck
Primary Examiner
Art Unit 3681

rhb
August 30, 2005